



Press Release: A National Airspace Redesign (NAR), Subgroup for Oceanic Airspace Redesign (SOAR) project.

By: Peter Hruz - ZNY

### **Preparations for New Technologies and Oceanic Procedures**

During 2001, New York Center North Atlantic operations personnel engaged in extensive planning to take advantage of technological and procedural improvements to the current Ocean Display and Processing System (ODAPS). The basic goals were to provide immediate operational improvement to the non-radar functions, create a base line operation that could be used for future enhancements, and to introduce concepts that would be included within the Advanced Technologies and Oceanic Procedures system (ATOP). Collaborative visitations with Oakland Oceanic and Anchorage Oceanic helped provide the basis for the design and physical layout of the controller workstations. These operational exchanges were accomplished due to the creation of the Subgroup for Oceanic Airspace Redesign (SOAR) under the auspices of the National Airspace Redesign (NAR), whose mission includes optimization and standardization of oceanic operations agency wide.

The previous method of operation was severely limited from an automation perspective. Air traffic operations within nearly 3 million square miles of non-radar airspace were limited to three geographically fixed sectors. Electronically attached to these fixed sectors was the flight data processing, conflict probe, communications via ARINC (Aeronautical Radio Incorporated) still printed on rolled paper, and a centralized location for flight strip production. Each non-radar sector relied on two people, a non-radar controller and a shared ODAP controller whose responsibility it was to maintain an accurate real time database of that sectors' flight data (**Diagram 1**). This reliance on a two-person operation and the often-great distance between controllers was inefficient and potentially prone to communication/coordination errors.

Further complicating the North Atlantic operation is the constantly changing route structure. The North Atlantic airspace is nearly devoid of any fixed airway structure, relying on a combination of random route flight and an organized track structure (OTS). The OTS is developed twice daily, by the 4 major North Atlantic service providers, to organize major traffic flows between heavily flown city pairs or geographic regions (i.e. New York area airports to London area airports). Oceanic tracks are developed taking into consideration; the direction of the major traffic flow (westbound during morning hours, eastbound during evening hours), user submitted Preferred Route Messages (PRM), and the forecast location and movement of the jet stream.